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United States
Department of
Agriculture

Forest Service
Southern Region

Trail Management Improvement Program

5 Year Action Plan

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TRAIL MANAGEMENT
IMPROVEMENT PROGRAM
SOUTHERN REGION 1984-1989

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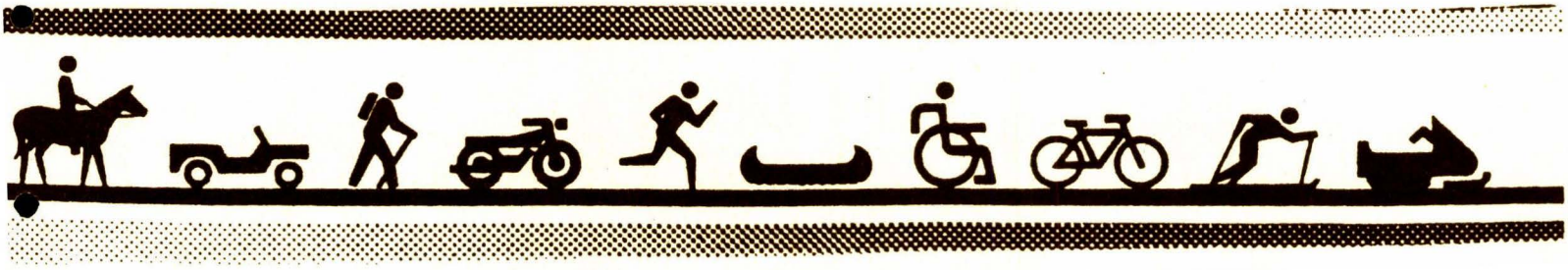


REGION EIGHT FIVE YEAR TRAIL MANAGEMENT IMPROVEMENT PROGRAM

I. PURPOSE

The purpose of the 5 Year Trail Improvement Program is to strengthen and guide the management of the Southern Region Trail Program. The Plan identifies Regional conditions and situations that presently impede the trail program, and sets forth goals and objectives to correct these conditions while providing direction for continued management improvement. These goals and objectives supplement the Forest Land Management Planning process and provide additional direction to the budgetary process and Annual Program of Work.

II. INTRODUCTION

Trails have played an important role in providing outdoor recreation in the National Forest Southern Region (8) since the early 1930's. They have served a broad spectrum of society from the serious long distance hiker attempting to cover many miles in record time, to families on a casual Sunday stroll, to even the local farm boy who stalks along a path as he hunts squirrels.

Over 6,600 miles of system trails along with untold miles of old woods roads provide access to 12 million acres of National Forest land suited to dispersed type recreation. Not only do these trails offer a recreation experience in themselves, but also provide the facility to carry out a variety of other recreation opportunities. Such opportunities as: hunting, fishing, rock climbing, bird watching, rock hounding, motorcycling, and horseback riding are just a few of the popular activities associated with trails.

The South encompasses 13 states from Virginia and Kentucky to the South Atlantic and Gulf Coast extending westward to include Texas, Arkansas, and Oklahoma. Trails in the South are found in more diverse ecosystems than anywhere in the nation. They vary from the sub-tropical jungle vegetation of Puerto Rico and Florida, to the coastal plains, swamps and bays to rugged Appalachian Mountains that reach elevations of 6,000 feet.

The character and purpose of these trails are as diverse as the ecosystems they traverse. They vary from the Appalachian National Scenic Trail that follows the crest of the Appalachian Mountains, to motorcycle trails meandering through Texas hill country, to special trails designed for the blind and handicapped. All are challenges to management in providing expected pleasant experiences for the outdoor recreationist.

Emphasis on recreation trails has increased dramatically since the early 1960's when recreation was recognized as one of the important multiple uses of National Forests. Expansion of the Region's trails reached its high point during the period 1970 to 1981 when over

1,200 miles of trail were constructed and added to the system. A growing national interest in hiking along with a National Trails Systems Act (1968) provided the impetus. An assortment of manpower programs designed to put people to work, provided much of the labor. Programs such as the Youth Conservation Corps (YCC), Young Adult Conservation Corps (YACC), and Mainstream are credited with constructing a variety of trails during this period. Most trails were well planned and constructed while others primarily provided work projects for which there was no established need or purpose.

III. PRESENT SITUATION

A. General

Trail related recreation has increased dramatically over the last 10 years, although there are signs it is leveling off in some areas. Recreation Information Management (RIM) estimates for the years 1979-1983 shown in Table I reflect this trend. Future growth is expected up to the year 2030 in hiking as well as other forms of dispersed recreation that trails serve.

Private investment in outdoor recreation services, using National Forest lands and trails, is a significant business on only a few National Forests at this time. There are examples of river outfitters and outdoor equipment centers offering guide and training services for such activities as camping, survival, rock climbing and environmental study. More of these type services are expected to develop on a number of Forests in the near future.

Present trail use patterns are not uniform throughout the Region nor are they expected to be in the future. Mountain Forests receive a disproportionate share of the hiking use as they attract more tourists, and city dwellers seeking scenery, physical challenge, and climatic relief.

Little has been done to accurately measure the demands of the dispersed recreation users, their characteristics, and trends. Current land management plans show serious weaknesses in estimating future demands for dispersed recreation and trail needs.

Current planning direction does not recognize the role of trails as one of the important ways of increasing access and providing a wide variety and supply of dispersed recreation opportunities.

The condition of the Region's present trail system is not meeting the variety of trail user needs. In some situations trails are deteriorating from the lack of maintenance.

The demand for some types of trails and dispersed recreation is increasing while budgets for their management are decreasing. Trail management has not been given priority attention for funding on many Forests.

Presently, there are three National Scenic Trails and one National Historic Trail on National Forests in the South. These include the Appalachian Trail, Natchez Trace, Florida Trail and the Overmountain Victory Historic Trail. The Appalachian Trail is managed as a partnership of six National Forests, National Park Service, Appalachian Trail Conference and Clubs. This partnership has been studied for its success the world over.

The Region has designated 42 National Recreation Trails that included a variety of environments and lengths. Most of these trails are popular with hikers, but they have received inadequate funding for maintenance and management.

B. Trail Management Issues, Concerns, and Opportunities

A listing of trail management issues, concerns, and opportunities was developed based upon an analysis provided by each Forest in Region 8. This list was further refined by a Regional Staff Team using information gathered in recent service trips to seven Forests. The findings have been summerized into ten major subject areas (see Appendix A, page 12 for details).

Trail managers need to understand the role of trails in the management of dispersed recreation, on their Forests and within the Region. They should be aware of the present "state of the art" in managing trails and where we need improvement in the future. This program expresses some of their concerns and recommends ways for improvement.

TABLE I

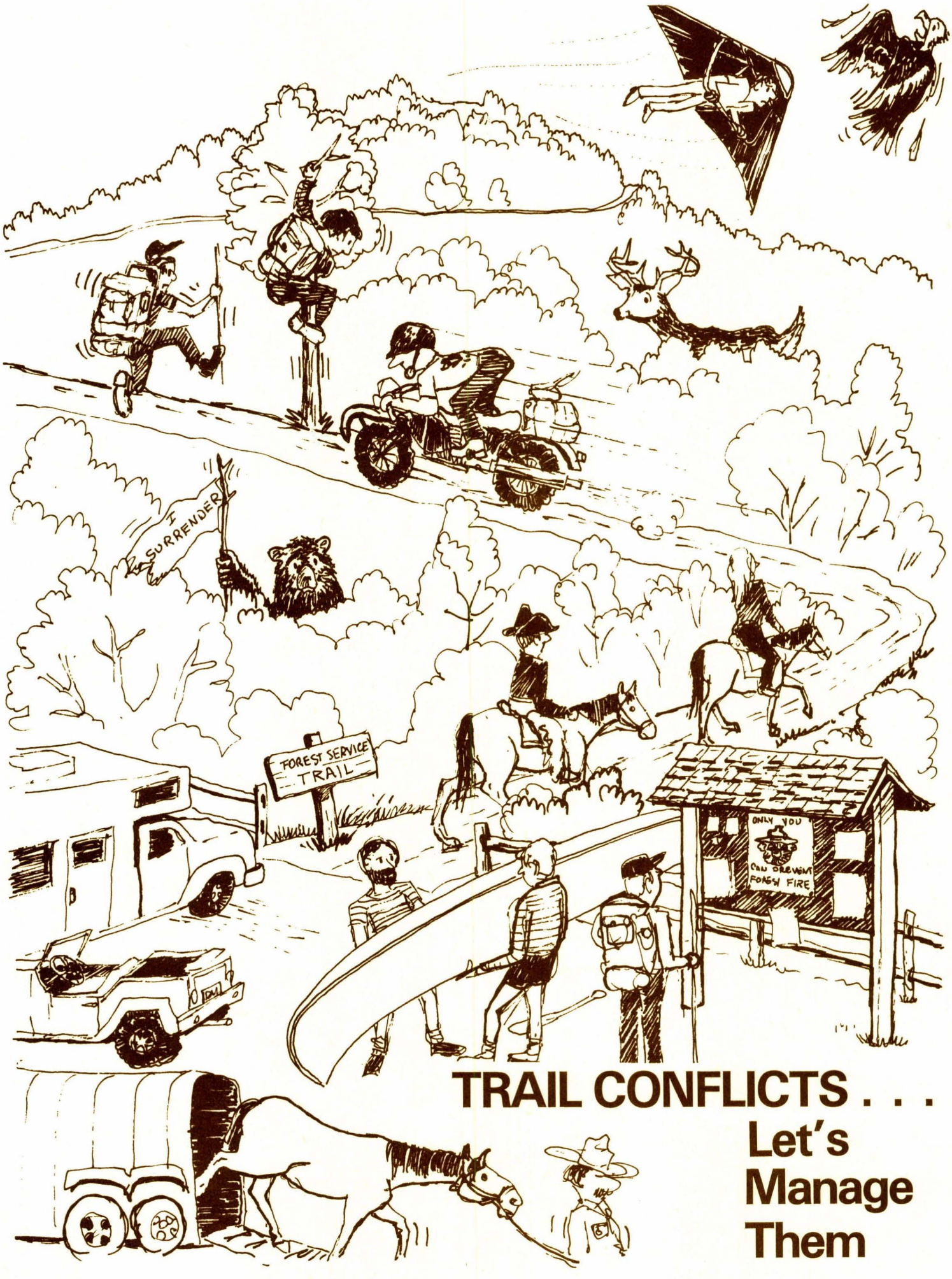
REGION 8 RIM
TRAIL RECREATION USE

Visitor Days (M)

SITE	1979	1980	1981	1982	1983
Trails	1,185	1,314	1,348	1,261	1,548
ACTIVITY					
Motorcycle & Scooter	639	724	741	758	753
Ice & Snow Craft	4	5	6	8	8
Hiking & Walking	1,586	1,746	1,757	1,730	1,815
Horseback	347	375	392	357	455
Cross Country Skiing	.3	1	2	13	12

Cordell and Hendee (1980) predict future growth up 59% over 1977 by the year 2030 in hiking as well as other forms of dispersed recreation that trails serve.1/ While these predictions were made for the Nation, they are applicable to the South. This prediction is partially based on the fact that the South is a leading growth region in population.

1/ Based on RPA 1980 Medium Projected Participation



TRAIL CONFLICTS . . .

Let's Manage Them

IV. TRAIL MANAGEMENT

GOALS

TO PROVIDE A FULL SPECTRUM OF RECREATION TRAILS IN THE SOUTHERN REGION THAT MEETS USER NEEDS THROUGH IMPROVED PLANNING AND MANAGEMENT.

PLAN AND MANAGE THE SOUTHERN REGION'S TRAIL SYSTEM BY IMPLEMENTING A 5 YEAR ACTION PROGRAM THAT PROVIDES DIRECTION AND GUIDANCE TO THE FIELD CONCERNING USER NEEDS, PLANNING, AND MANAGEMENT OF FOREST TRAILS.

V. 5 YEAR ACTION PLAN

OBJECTIVES	Completion Date
1. SET CLEAR DIRECTION AND RESPONSIBILITY FOR THE SOUTHERN REGION'S TRAIL PROGRAM. SET ANNUAL GOALS TO CARRY OUT THIS DIRECTION.	
a. Complete a Region-8 Manual Supplement that provides clear direction for planning and managing the trail program. The supplement will identify areas of responsibility and broad goals.	1984
b. Develop an improved method for preparing trail budgets through a task force study with WO, RO, and Forests.	1985
c. Set priorities and targets for trail maintenance and construction. Develop budgets to meet priorities and targets.	1984-1988
2. IMPROVE CURRENT TECHNIQUES FOR PLANNING AND MANAGING TRAIL SYSTEMS TO PROVIDE A FULL SPECTRUM OF APPROPRIATE TRAIL OPPORTUNITIES.	
a. Review draft Forest Land Management Plans for adequate analysis of the situation and the development of standards. Recommend where necessary, ways to improve the Plan that will address both immediate and future needs..	1984-1985
b. Prepare and test guidelines for improving updated Forest Land Management Plans that will:	1985
-- analyze the supply and demand for trails using the Recreation Opportunity Spectrum (ROS).	

-- recommend a process to identify the Forest's role in providing appropriate types of dispersed recreation opportunities and trail requirements to serve them.

c. Prepare and test guidelines for the preparation of individual area trail plans to serve dispersed recreation and wilderness. Such plans should: 1986

--serve large areas within the direction of the Forest Land Management Plan.

--determine recreation opportunities to be offered and plan for a trail system to serve them.

--set priorities and determine cost and benefits.

d. Prepare a guide for monitoring trail and dispersed recreation use. Train Forest personnel in its use. Emphasize the importance of monitoring to management. Encourage monitoring by setting up demonstration projects. 1984-1988

3. IMPROVE CURRENT TECHNIQUES FOR CONSTRUCTING AND MAINTAINING A TRAIL SYSTEM.

a. Provide direction that will insure use of a design narrative analysis before new trails are constructed. 1984

b. Provide guidelines now lacking in "Trails South" or Trail Handbook for constructing and maintaining trails such as: 1985

--how to accomodate a variety of trail uses that are compatible.

--design criteria for special type trails (i.e., ORV, horse, ski, bicycle, and disabled.)

--coordination of engineering requirements with visual resource management.

--design criteria for trailheads and bridges.

c. Pilot test a trail maintenance system on three Forests designed for improving inventory, priority setting and maintenance techniques. Recommend a successful maintenance system in a handbook supplement. Monitor its use. — 1986

4. IMPROVE TRAIL MANAGEMENT SKILLS BY EXPANDING KNOWLEDGE, AND GENERATING INTEREST.

a. Maintain trails expertise in RO through a trails specialist. — Continuing

b. Identify trail planning skills needed by transportation planners to carry out a total transportation plan that includes trails. Determine how these skills will be taught. Carry out training programs. — 1987

c. Prepare a training program for trail technicians requiring expertise in planning, design, construction, maintenance, and contract administration (1985). Carry out formal training programs and On-the-Job-Training to achieve this expertise. — 1985-1988

d. Recreation will keep an up-to-date Regional inventory of skilled personnel for different levels of trails expertise. — 1985

e. Conduct four Forest (zone) field training programs for specific management needs (i.e., trail planning, maintenance and construction). — 1985-1988

f. Develop a trails training package and slide tape programs to be used for force account or volunteer crews. The package will contain separate chapters (i.e., safety, supervision, construction techniques) that can be taught separately to fit the need. — 1986

g. Conduct at least one general workshop for trail and dispersed recreation management. Include a visit to a trail demonstration project. — 1986

h. Discuss important trail subjects or issues at Recreation Staff Officers Workshops. — When Held

--miles of reconstruction or construction needs

7. ENCOURAGE NECESSARY TRAIL AND DISPERSED RECREATION RESEARCH AND DISSEMINATE AVAILABLE INFORMATION THROUGH TECHNOLOGY TRANSFER

a. Convene a task force made up of line officers, staff, universities, and Forest Service researchers to identify specific research needs and how they might be implemented. — 1985

b. Carry out technology transfer through service trips, workshops, and direct requests. Keep Forests and Districts aware of the state of the art by informing them of current literature and programs. — 1984 - 1988

c. Encourage technology transfer by Forests and Districts sharing experiences. — Continuing

d. Invite research specialists to participate in management studies, training sessions, and on-the-ground problem solving. — 1984 - 1988

8. INFORM THE VISITOR ABOUT TRAIL AND DISPERSED RECREATION OPPORTUNITIES AND OUTDOOR ETHICS THROUGH A UNIFIED INFORMATION SYSTEM.

a. Convene a Regional task force, made up of representatives from RO, Forest, and District Staff to recommend guidelines for the following: — 1985

--what types of maps, brochures, and information is needed for trail users?

--should a uniform system be used to reach these needs?

--what role should private industry play in this system?

--how should we get public feedback to uniformly evaluate public response and demand for information? How should this feedback be used to give the public what is needed?

b. Prepare a Regional handbook supplement that provides standards for making wilderness and dispersed area trail maps. Require use of these standards. — 1984

9. STRENGTHEN INVOLVEMENT AND COORDINATION WITH NATIONAL AND STATE AGENCIES AND TRAIL ASSOCIATIONS.

a. Encourage Forests to coordinate with appropriate State and federal governments regarding their role in supplying trails and dispersed recreation opportunities. Identify Forest role in all State trail plans. — 1988

b. Attend local and national trail association meetings to expand specialist expertise and to promote trail recreation opportunities on National Forests. — Continuing

10. DETERMINE BETTER METHODS FOR UNDERSTANDING AND MANAGING TRAIL USES TO MEET USER NEEDS WHILE PROTECTING THE RESOURCES

a. Encourage Forests to establish dispersed recreation demonstration areas. Initiate monitoring studies to determine user numbers and characteristics. Monitor the results of management techniques. — 1988

b. Develop capacity criteria for management of trail experiences by ROS class. — 1988

c. Develop clear standards and actions as contigency measures: — 1988

--when levels of acceptable change of the environment exceed standards.

--when quality of experience deteriorates below acceptable levels.

APPENDIX A

R-8 TRAIL MANAGEMENT ISSUES, CONCERNS AND OPPORTUNITIES

1. TRAIL PROGRAM DIRECTION

   A. Trail program lacks direction, and priority is usually low--

      --emphasis varies by Forest.

      --responsibility for trails varies by Forests or is splintered.

      --Forest Supervisors and Staff lack understanding of the benefits of a strong trail program.

   B. Lack of Regional goals for trail program.

   C. Enthusiasm needs to be built and kept up from the ground level.

2. SYSTEM PLANNING FOR TRAILS

   A. Lack of process or guidelines for detailed planning of dispersed recreation areas under the direction of the Forest Land Management Plan.

   B. No trail planning system in Forest land management plans.

   C. ROS concepts are not understood by other land management disciplines and are not understood or supported by line management.

   D. Transportation planning often ignores trails. Closed timber roads may have recreational opportunities unrecognized and unmanaged.

   E. Inadequate understanding and analysis of present use and future demand.

      --Good data lacking or poorly displayed.
      --Economical means of sampling not being used.
      --Methods of sampling and projecting needs are available but not in the managers hands in a useable form.
      --Lack of incentive for gathering data.
      --No Regional goals for monitoring and setting demand analysis.
      --No guidelines for establishing trail demand and supply and translating them into action plans.

   F. Lack of guidelines for planning a trail system within existing and proposed wilderness.

   G. ROS is thought of as a planning concept and is not being used in management on-the-ground.

3. TRAIL DESIGN AND CONDITION

A. Present trail system conditions are not meeting all peoples' needs.

--Lack of trails to meet certain user experiences.
--Lack understanding of what trails can be used by different user groups (includes closed roads).
--Inadequate trail maintenance management.
--Lack of closed trail loops of different lengths for different user types.
--Many trails are not being used to perceived management capacity. Need clearer picture of what people want in hiking experience and what they will use. Need criteria for setting reasonable use levels by ROS classes.
--Some trails are poorly located from both engineering and a hiker experience standpoint.
--Some trails lack proper layout because of ownership patterns.
--The condition of the Region's present trail system is deteriorating as a result of poor maintenance and lack of use. Many trail users are not being served by the present system.

B. Trail design lacks:

--process for analyzing its total needs and purpose.
--types of users and experience provided.
--selecting standards to meet the trail requirements.
--criteria for different handicapped needs.
--existing trail standards often misunderstood, ignored or wrong standards used.
--some old trails were not built to standard and are now deteriorating and costly to maintain.
--sufficient and safe trailheads (need design criteria).
--bridges tend to be overdesigned and not linked to experience levels (need design criteria to fit experience level).

4. TRAIL FUNDING

A. Trail management is considered low priority on most Forests for constrained dollars in the budget process.

B. Normal appropriated maintenance funding is below minimum to do required work.

C. Both trail construction and maintenance programs tends to be funded politically to create jobs during periods of high unemployment. This creates sporatic interest and raises the priority, but it is not efficiently handled on a "crash" basis.

D. Appropriated trail construction funds are allocated to complete existing trails under construction or improving/unsafe conditions. There is little opportunity to construct new priority trails.

5. TRAINING

   A. Lack of skilled trail people to train the work force in trail construction, maintenance and management techniques.

   B. Lack of methods, techniques and skills to train managers and technicians in trail location, construction, maintenance and administration.

   C. No inventory of skilled trails personnel.

   D. The role of engineers certified for trails work is not well understood. How many are certified? How are they used when certified?

   E. Necessary skills needed for a trails technician not defined.

6. TRAIL INVENTORY SYSTEM

   Trail Inventory System (TIS) needs improvement and kept current. Need to correspond with Recreation Opportunity Spectrum (ROS) management objectives.

   --System needs to be designed to help managers but provide necessary data for WO, Regional and Forest use.

7. VOLUNTEER PROGRAM

   The volunteer program is not fully coordinated and utilized.

   --There is a lack of understanding of what volunteers can and can't do for trails.

   --Lack of funding and time to manage the program.

   --Need to share experiences and build on good results.

   --Lack of experience, how to organize, recruit, train, and operate a successful volunteer trail program. A lot can be drawn from sharing experiences with Appalachian Trail Managers.

   --There may be a need to develop an Adopt-A-Trail program region-wide.

8. VISITOR INFORMATION PROGRAMS ABOUT TRAILS AND DISPERSED RECREATION OPPORTUNITIES SHOW A LACK OF UNDERSTANDING AND UNIFORM DIRECTION.

   A. Lack of guidelines as to the types of maps, brochures, and information needed for trail users.

   B. Lack of a control system for evaluating public response and demand for certain trail maps and information now available.

   C. Lack of a coordinated effort and ways to disseminate information.

D. Barriers exist that make the dissemination of information inefficient.

E. Recreation Opportunity Guide (ROG) benefits are not well understood in in this Region and only a few Forests and Districts use it. There has been no strong Regional direction to use this system.

F. Opportunities need to be explored for the private sector to provide maps and select information.

G. Standards for making wilderness and dispersed area maps need to be developed and used region-wide.

9. COORDINATION WITH OUTSIDE AGENCIES AND PRIVATE ASSOCIATIONS

There is a need to strengthen our involvement and coordination with national and state agencies and trail associations.

10. MANAGING THE VISITOR

A. There is a need to better establish capacities and control of visitors use.

--Need better monitoring and analysis of use.

--Based upon use analysis, develop clear standards that provide managers with contingency measures to be used when:

Level of acceptable change of the environment exceed standards.

Quality of experience deteriorates below acceptable levels.

B. There is a need to provide adequate and appropriate facilities where needed for user convenience and safety.

--Need to provide guidelines and design criteria for trail facilities.

APPENDIX B

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